In the Claims

Please amend the claims as follows. A marked up version of the claims showing the changes made is attached to this communication as Appendix B

1. A method for detecting a pulldown technique comprising:

sequentially comparing adjacent pairs of frames of a video sequence to detect relatively high values and relatively low values of at least one frequency component of said adjacent pairs of frames; and

determining that the video sequence was produced by a 3:2 pulldown technique when a repeating pattern of said adjacent pairs is high/low/high/low/low values.

13. A method for dynamically determining threshold detection levels in a pulldown detection system comprising:

determining that the pulldown technique is 2:2;

obtaining a first, second and third previous frequency detection value; and

dynamically adjusting a threshold detection level based on the first, second and third previous frequency detection values.

14. The method of claim 13 wherein dynamically adjusting said threshold detection level includes calculating a new threshold detection level by:

verifying that a 2:2 pulldown lock has not occurred;

verifying that the first and third previous frequency detection values are low;

obtaining an average of the first and third previous frequency detection values;

obtaining the magnitude of the difference between the average and the second previous frequency detection value;

dividing by 2 ; and

adding to an immediately preceding calculated threshold level.

15. The method of claim 13 wherein dynamically adjusting said threshold detection level includes calculating a new threshold detection level by:

verifying that a 2:2 pulldown lock has not occurred;

verifying that the first and third previous frequency detection values are high;

obtaining an average of the first and third previous frequency detection values;

obtaining the magnitude of the difference between the average and the second previous frequency detection value;

dividing by 2 ; and

subtracting from an immediately preceding calculated threshold level.

16. The method of claim 13 wherein dynamically adjusting said threshold detection level includes calculating a new threshold detection level by:

verifying that a 2:2 pulldown lock has occurred;

verifying that the first and third previous frequency detection values are low;

obtaining an average of the first and third previous frequency detection values;

obtaining the magnitude of the difference between the average and the second previous frequency detection value;

dividing by 4 ; and

adding to an immediately preceding calculated threshold level.

DVDOP014A/PLH/JPK   8

17. The method of claim 13 wherein dynamically adjusting said threshold detection level includes calculating a new threshold detection level by:

verifying that a 2:2 pulldown lock has occurred;

verifying that the first and third previous frequency detection values are high;

obtaining an average of the first and third previous frequency detection values;

obtaining the magnitude of the difference between the average and the second previous frequency detection value;

dividing by 4 ; and

subtracting from an immediately preceding calculated threshold level.

19. The method of claim 18 wherein said confidence level is below about a first threshold, no action is taken to improve the video sequence.

20. The method of claim 19 wherein said confidence level is above about said first threshold but below about a second threshold, an interlace artifact removal process is initiated.

22. The method of claim 18 where said confidence level is determined by combining at least two of the following elements:

a field difference pair history value;

a field difference noise filter low threshold value;

a source type transition type count value;

a sequence of frequency detection values; and

a ratio of high to low frequency detection values.

23. A method for detecting source-type sequence breaks in a video stream comprising:

sequentially comparing adjacent pairs of frames of a video sequence to detect relatively high values and relatively low values of at least one frequency component of said adjacent pairs of frames; and

detecting source-type sequence breaks by analyzing a pattern of said relatively high and low values of at least one frequency component.